WHAT IS CLAIMED IS:

1. A replication-competent adenovirus vector comprising an adenovirus gene essential for replication under transcriptional control of an Epstein Barr Virus (EBV)-specific transcriptional regulatory element (TRE).

2. The adenovirus vector according to Claim 1, wherein said EBV-specific TRE comprises a sequence derived from the sequence 5' to the translational start codon for the LMP1 EBV gene.

3. The adenovirus vector according to Claim 2, wherein said EBV-specific TRE comprises the sequence set forth in SEQ ID NO:1.

4. The adenovirus vector according to Claim 3, wherein said EBV-specific TRE comprises the ED-L1 regulatory region.

5. The adenovirus vector according to Claim 3, wherein said EBV-specific TRE comprises the L1-TR regulatory region.

6. The adenovirus vector according to Claim 1, wherein said EBV-specific TRE comprises a sequence derived from the sequence 5' to the translational start codon for the LMP2A EBV gene.

7. The adenovirus vector according to Claim 6, wherein said EBV-specific TRE comprises the sequence set forth in SEQ ID NO:2.

8. The adenovirus vector according to Claim 1, wherein said EBV-specific TRE further comprises a human promoter or enhancer.

9. The adenovirus vector according to Claim 1, wherein said EBV-specific TRE further comprises a human transcriptional regulatory factor response element.

10. The adenovirus vector according to Claim 1, wherein said EBV-specific TRE comprises a promoter and enhancer.

11. The adenovirus vector according to Claim 1, wherein said EBV-specific TRE comprises two or more enhancers.

12. The adenovirus vector according to Claim 1, wherein the adenoviral vector comprises first and second adenoviral genes co-transcribed under transcriptional control of said EBV-specific TRE.

13. The adenovirus vector according to Claim 12, wherein the second adenoviral gene is under translational control of an IRES.

14. The adenovirus vector of Claim 1, wherein said adenoviral gene essential for replication is E1A or E1B.

15. The adenovirus vector of Claim 14, wherein E1A or E1B has a mutation in, or deletion of, its endogenous promoter.

16. The adenovirus vector of Claim 15, wherein E1B has a deletion of the 19-kDa region.

17. A composition comprising:

a replication-competent adenovirus vector according to Claim 1 and a pharmaceutically acceptable excipient.

18. A host cell comprising the adenovirus vector of claim 1.